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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/531,503 | 07/13/2005 | Rolf Plotz | AZ44 I | 8647 |

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EXAMINER

JORDAN, STEPHEN W

ART UNIT

PAPER NUMBER

1725

DATE MAILED: 02/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/531,503 | Applicant(s) PLOTZ, ROLF | |
| | Examiner Stephen Jordan | Art Unit 1725 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/13/5 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/21/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Information Disclosure Statement***

The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Drawings

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New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because items are duplicated, missing or mislabeled as exemplified in figure 5, which does not include the items 3 and 9 as specified. In figure 1, the rail and bar are both labeled "S". In figure 3, the head is identified with an "S", etc... Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: Items on the drawings are incorrectly specified, and unclear, as noted above. Appropriate correction is required.

Claim Objections

Claim 11 is objected to because of the following informalities: The phrase "that enables to preheating of the end" is unclear. Appropriate correction is required.

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by US 2932863 (Ahlerlert). Ahlerlert teaches method for welding rails comprising a casting mold made of a refractory material and having two mold halves (Ahlerlert column 2 lines 59-60), wherein each mold half has at least one lateral vent and at least one sprue (Ahlerlert figure 4 items 7 & 15), mounting the two mold halves around two end pieces of the rail that are to be connected, thereby forming a casting space (Ahlerlert figure 4); inserting an alloy insert into the casting mold, wherein the alloy insert has a shape that enables preheating of the end pieces of the rail (Ahlerlert figure 4 item 21, and column 4 line 44 - this is interpreted to be either a metallic conductor, a thermite type reactant with an ignition temperature exceeding an undisclosed pre-heating temperature, and in other ways.); preheating the mounting mold and sealing the casting space with a sealing element made of refractory material covering the rail head; introducing steel produced by a metallothermal process into the casting space through the sprues in the mold halves after passing over the sealing element, thereby filling the casting space, wherein said steel emerges into the casting space substantially at the rail head; and contacting alloy inserts in solid and compact form arranged above the rail head in the casting space with part of the steel

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forming a weld in a region of the rail head (Ahlerlert column 4 lines 37-52 wherein the match bar constitutes the insert itself in conjunction with the mold meets all of these limitations as the aluminothermal alloy is deflected by and eventually forms with Ahlerlert's match bar. Also see column 3, lines 6-7 and lines 13-15 wherein Ahlerlert explains that a plurality of match bars sealed with refractory material and refractory material are interchangeable). Regarding claim 12; The undefined bearing is interpreted to be the bottom most of Ahlerlert's match bars (column 3, line 13). Regarding claim 13; wherein the bearing is formed by a circumferential groove, such that the alloy insert can be inserted during the mold assembly (Ahlerlert column 3, lines 6-15). Regarding claims 14 & 15; The insert (Ahlerlert figure 4 item 21) rests on a circumferential groove, or step. Regarding claims 15-16; Wherein the casting space has a quadrilateral cross section with a central opening (Ahlerlert figure 5 item 21).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17&18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahlerlert as applied to claim 12 above, and further in view of US 3570585 (Harris). Ahlerlert teaches a metallothermal rail mold with a quadrilateral opening, but does

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not explicitly discuss a circular graduated insert in the casting area. Harris teaches use of a circular graduated ring insert in a casting mold (Harris, figures 1 and 5, and column 2 lines 5-8). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the mold of Ahlert to utilize the circular graduated ring insert of Harris in order to form a seal (Harris, column 2 lines 30-31).

Claims 19 & 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahlert as applied to claim 12 above, and further in view of US 1732382 (Schultz). Ahlert teaches a metallothermal rail mold with sprues and vents but does not teach bypasses. Schultz teaches use of a mold whereby the sprues and vents bypass by touching each other before contacting the foot (Schultz, figure 1, and column 2 lines 55-70). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the mold of Ahlert to utilize the bypass of Schultz in order to insure that the temperature of the molten metal was sufficient to fuse the rail flanges together (Schultz, page 1 lines 65-70).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Jordan whose telephone number is 571-272-0899. The examiner can normally be reached on 8:00-5:30M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SWJ


JONATHAN JOHNSON
PRIMARY EXAMINER